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Industrial Safety Bulletin August 1932

Maine Department of Labor and Industry

INDUSTRIAL SAFETY BULLETIN

AUGUST 1932

EMPLOYEES' SAFETY CREED

"I believe in Safety because the loss of my ability to labor means suffering for those I love most on earth; it leaves to the mercies of a more or less indifferent world those whom every workman desires most of all to protect. I believe in Safety because it tends to conserve my ability to labor and that ability is my sole capital; losing it I am bankrupt. I believe in Safety because my safety means the safety of my fellow-workmen. In risking myself I risk others. I believe in Safety because the bread I earn with my own hands is sweeter to me and mine a thousand times than charity in any form."

Central Division Plant Publication
W. U. Tel. Co.

Issued by
THE DEPARTMENT OF LABOR AND INDUSTRY
Augusta, Maine

Plant Routing:

Superintendent
Master Mechanic
Steam Supt.
Electrical Supt.
Maintenance Supt.
Safety Director
Plant Nurse
Chairman, Safety Com.
Mr. .....
Mr. .....
Mr. .....
Mr. .....
Mr. .....
Mr. .....

Please read thoroughly and pass along promptly according to this routing. One idea thus gained may save a life.

S-A-F-E-T-Y
spells
GOOD BUSINESS

We suggest that this cover be folded back on heavy line and clipped. Check names of those you wish to read the material in this Bulletin.

INDUSTRIAL SAFETY BULLETIN

DEPARTMENT OF LABOR AND INDUSTRY - - AUGUSTA, MAINE

CHARLES O. BEALS, Commissioner

Walter J. Brennan — Safety Engineer
Edward K. Sawyer — Inspector
Minnie E. Hanley — Woman Factory Inspector

Vol. I — August 1932 — No. 13

WHY SOME SUCCEED

Much has been written of the opportunities foremen have to teach safe practice and build a safety morale such as reflects great credit upon themselves as well as upon their departmental operating costs. Safety engineers refer to supervisors as "key men" and justifiably so, for it is to such authority that the rank and file of workers turn for orders, interpretations of company policy and instruction.

Just the other day I walked into the shop of the ideal, 1932 style foreman. His crew was being assigned to the jobs of the day and incorporated in the discussion of each task was a mention of the safety aspects of it. It was apparent that he had carefully surveyed each job not only for the material needed, the tools and men necessary, but for the hazards that might be encountered.

As I appeared on the scene he was telling a worker to be sure and get assistance when the time arrived for a certain lifting operation. Another man was cautioned not to dare pour bearing metal without goggles. A third was ordered to take care that nothing but selected grades of lumber be built into a scaffold.

The clothing of each man, including their shoes, was the object of intensive scrutiny and one worker was denied the right to work until a jumper was tucked safely inside his overalls and his sleeves rolled tightly above the elbows. Later every machine in the shop was inspected to be sure that guards were in place and working properly. On his program for the morning was a check-up visit, timed to take place coincident with the hazards certain to be encountered, "just to be sure" as he expressed it.

This foreman is a success. His Plant Manager boasts of him, his Safety Director sings his praises and his associates concede him certain promotion. He looked safety work square in the eye, saw a humane and economic advantage in it and proceeded to learn about it. By poster, by magazine, by questioning and by abundant thought he learned the answers to his problems. He is a "big man" in more ways than one—and Maine's safety needs more like him.

GLARE MAKES INJURIES

The brilliant sunlight streamed into the drab and gloomy shop casting a dazzling swath full in the faces of several workers. Nearby a furnace door swung open and another blaze of brilliance made bystanders cringe. The closing of the furnace made the area seem very dark and men seemed to grope their way about for a few moments.

Workers are momentarily blind when exposed to alternate areas of brilliancy and gloom and it is at such critical times that injuries are prone to occur. The truck handle across the passageway is not seen, the approaching truck is unnoticed and the top step of the stairway is "fumbled" to precipitate the worker and his burden to a hospital cot.

Screens, shades and adequate lighting coupled with the occasional use of goggles or spectacles fitted with special tinted lenses to absorb harmful infra-red and ultra-violet are indicated. Vision is all-essential to safety and a study of glare and shadow conditions in your plant may indicate the cause of many injuries whose basic causes have proven baffling.

NEW BOS'N'S CHAIR

A considerable interest has been manifested in a new bos'n's chair, recently developed for a large public utility company.

Much attention has been given the webbing to offset the destructive effects of paint and the chair is especially suited to the painting of towers and steel structures, an ultra-hazardous occupation without proper equipment.

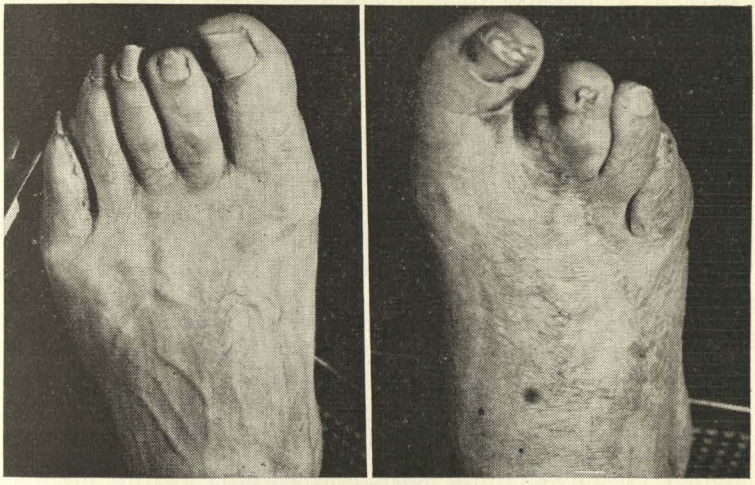
An outstanding feature is the design which enables the user to work with both hands free as well as the tensile strengths of the webbing and main suspension D ring, the former having a strength in excess of 3000 pounds and the D ring of 5000 pounds.

This device is priced at $8.50 and this Department will gladly arrange for one to be sent on approval.

Representatives of several firms in the vicinity of Augusta met on August 4th at the State House to listen to an expert from a famous optical concern discuss eye protection. The discourse touched upon the optical considerations, construction, types of goggles as well as the harmfulness and protection against ultra-violet and infra-red rays.

An interesting feature was the demonstration of the Bureau of Standards test for lens strength, consisting of the dropping of steel balls of various diameters the standard distance of one meter (39.37 inches) upon lenses.

SAFETY SHOES SAVES FEET



Courtesy Endicott-Johnson Shoe Co.

Over 30% of all industrial accidents are due to handling material and of this astonishing percentage a large part are chargeable to foot injuries. When we note the nondescript footwear of many workers the frequency and severity of this type is readily understood.

In our experience no safety shoes have ever been demonstrated to workers without a tremendous enthusiasm resulting. This is logical and natural because crews quickly see the outstanding value presented. A sturdy, all-leather, practically waterproof shoe at a price scarcely more than the cost of canvas shoes, possible because of the factory to wearer policy, will sell itself.

Executives can have increased foot protection with no expenditure save for a little goodwill, the usual procedure being to stock several pairs of two or three different types, setting a price on them such as barely covers costs. These shoes can be offered crews at about $3.50 a pair.

These shoes on the feet of foremen and key-men in each crew, on display in the first aid room, bulletin boards or at a special departmental meeting just before closing time, will sell astonishingly fast. The occasional scrutiny of crews' footwear by foremen coupled with a little sales talk for those whose feet are jeopardized by worn-out, soft-toed shoes will do much, as well.

Safety shoes come in a variety of styles and types to serve the diversified needs of industry. All have blow-resistant toe caps of steel or vulcanized fibre and soles of either solid leather or non-slip cord material. Steel shank construction is common.

Sales can be stimulated by extending credit to users, deducting a small sum from the weekly pay until the shoes are paid for. In some plants sound and proper footwear is demanded as a requisite to employment and the credit system makes such a rule feasible and workable.

AN INVALUABLE IDEA

Mr. A. B. Larchar, Soda Division Superintendent, Penobscot Chemical Fibre Company, utilizes a most valuable method of obtaining intimate information as to safety conditions in his Division.

Supplementing his own tireless scrutiny Mr. Larchar periodically appoints an Inspection Committee to search out hidden hazards and to study operations with him. He has found that there cannot be too many agencies alert to unsafe practice and conditions.

Coming out of such a method is that invaluable insinuation that the "Big Boss" is anxious for ideas and that he welcomes the earnest cooperation of every last man. Every worker so appointed gains a new perspective on accident prevention and from the experience had learns to recognize and report hazardous conditions ever afterwards.

GLEANED FROM THE REPORTS

First, second and third fingers crushed in ventilating machine, shoe industry. Operator inserted fingers to correct the position of stock.

While cleaning machinery, operator had left forearm caught between cylinder and pin roll to suffer multiple lacerations necessitating stitches.

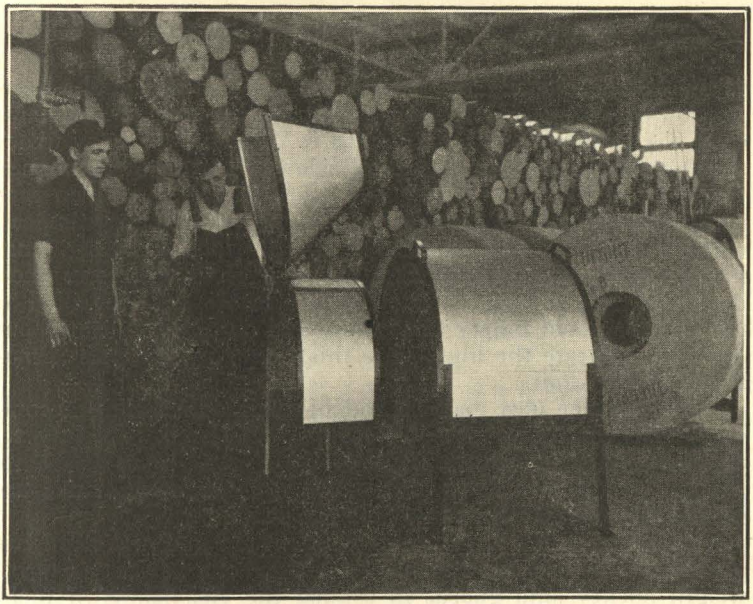
All five fingers cut on buzz planer when board slipped. A push block would have helped materially and a jointer guard would have forbid this injury.

Kick-back from planer (surfacer) struck worker a terrific blow in abdomen. Kick-back fingers would have made this impossible. Kick-backs from saws accounted for broken ribs, a broken hand, lacerated forearm and miscellaneous injuries of a low severity. Sharp saws and knives, properly adjusted and designed splitters, non kick-back fingers and proper position to one side of feeding points will protect against such misfortune.

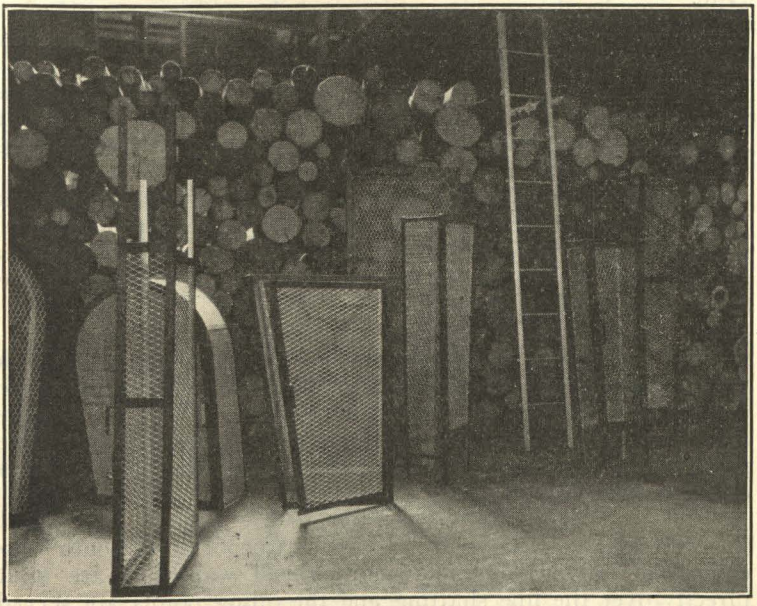
Poisoning from insecticide as a result of perspiration, ungloved hands and lack of waxy cream to impregnate pores of skin against such substances. Respirators are indicated.

Running on belts with power on, accounted for three fractures. Evidently the workers are not sure that their supervisors and managements care how tasks are performed.

Employee's shirt caught fire from edge setting machine.



A most ingenious and satisfactory guard developed to house paper machine drives. The use of heavy galvanized iron reinforced with angle irons together with aluminum paint feature these outstanding examples of the guardmaker's art.



An assortment of belt and pulley guards, built by Guardmaker Buzzell of the International Paper Company, Livermore Falls. Lightness, fireproofing, durability and utility characterize Mr. Buzzell's construction and I. P. Co.'s requirements.

HOLLINGSWORTH & WHITNEY COMPANY VERY SUCCESSFUL

On the inside back cover of this Bulletin will be found a comparison of safety performances, 1930 against 1932, which indicates the progress at Hollingsworth & Whitney Company under the able guidance of Mr. Arthur Wnslow, Manager of Personnel.

This firm with its five mills in three cities has proven that an intensified and systematic accident prevention program can conquer over the tremendous hazards of wood handling, pulp making and the thousand and one dangerous processes incidental to paper manufacture. Certificates of Merit awarded at the 1931 National Safety Conference and on display throughout the mills indicate the high place this Company occupies in national safety affairs.

That a better idea may be had of their outstanding accomplishments the following achievements are offered. On July 22, the Sulphite Mill (which includes the Wood Room) with its average of 198 men had worked 306,134 consecutive man-hours in perfect freedom from lost-time accidents.

Twenty-six hundred rack cars of pulpwood were unloaded last year in perfect safety, utilizing such ingenious devices as lightweight hockey shin guards to combat the viciousness of pickaroon punctures.

The year is divided into thirteen periods and recently the huge Waterville plant, made up of the Algonquin and Taconnet Mills, completed two consecutive periods (56 days) without a single hour of lost time or a dollar of compensation, not even time or money carried over from previous periods.

The Madison mill has a perfect record for 1931-1932, has a perfect score in the National Pulp & Paper Contest just closed and goes into its third year with every prospect of setting up a phenomenal record.

Accident prevention has been reduced to a purely business basis with all agencies enlisted and with a program devoid of sensationalism. Mr. Winslow's diversified prevention activities and methods may well be studied by those whose results are not so astonishingly good.

The Oxford and Hollingsworth & Whitney Companies, both paper manufacturers, present Certificates of Merit to those departments having an accident-free year. These certificates are signed by the President and General Manager and contribute much to that essential "safety morale" so evident in the plants of these firms.

At the plant of the John MacGregor Corporation, South Lincoln, spool manufacturers, the overhead walkways are built directly over the line shafting and the oiling points are served through miniature trap doors by the use of an oil can equipped with a long spout.

NATIONAL INDUSTRIAL ACCIDENT PICTURE—1931

Accidental Injury Rates, by Character of Injury, and by Industry, 1931.

As copied from "Accident Facts—1932 Edition", publication of National Safety Council.

Industry	Frequency Rates				Severity Rates			
	Total	Fatal	Permanent Partial	Temporary	Total	Fatal	Permanent Partial	Temporary
Cement	4.86	.37	.56	3.93	2.80	2.24	.39	.17
Laundry	6.24	.45	.11	5.68	2.75	2.67	.02	.06
Textile	9.11	.04	.35	8.72	.58	.22	.20	.16
Printing and Publishing	9.12	0	.41	8.71	.25	0	.14	.11
Machinery	9.57	.06	.67	8.84	.90	.35	.35	.20
Public Utility	12.76	.28	.16	12.32	2.08	1.67	.17	.24
Tanning and Leather	13.73	.02	.29	13.42	.56	.10	.31	.15
Metal Products	14.70	.07	1.04	13.59	1.17	.41	.53	.23
Food	15.86	.07	.55	15.24	1.01	.40	.38	.23
Paper and Pulp	20.62	.12	.73	19.77	1.52	.74	.43	.35
Quarry	22.98	.74	1.48	20.76	6.88	4.44	2.01	.43
Foundry	24.19	.17	.91	23.11	2.10	1.06	.61	.43
Woodworking and Lumber	33.54	.18	1.12	32.24	2.60	1.07	.93	.60
Construction	48.15	.50	1.65	46.00	5.14	2.97	1.06	1.11
Mining	57.24	1.13	1.86	54.25	9.44	6.79	1.35	1.30

PREVENTION OF ELECTRICAL ACCIDENTS

By John Pomeroy

Electrical Supt. Lawrence Portland Cement Co.

(Continued from July issue)

We used to sit in the shop and wait for something to break; now we methodically and periodically inspect and repair every piece of equipment. Conduit lines, motor frames, transformer and starter cases must be solidly grounded. Just to put on a ground is not enough; these grounds must be inspected and maintained. Insulation tests must be made periodically on all circuits and windings, all relays tested, all contacts maintained to function properly at all times. This requires a different kind of skill than it did to simply put something together. It requires specially trained men—men who are safety-minded, men who are efficient, and their big job is to prevent accidents, electrical, mechanical and personal by eliminating potential possibilities. Modern methods will work in obsolete plants, but obsolete methods will not work in modern plants.

When inspecting and maintaining high voltage equipment, or even moderate voltage equipment, the expert electrician requires safety equipment, rubber gloves, rubber blankets, line hose, goggles and dust masks. This equipment must be the best that can be purchased; cheap stuff is a waste of money as it will not wear well and is an added hazard in itself. I am not going to dwell on this subject as it is a story by itself. The National Safety Council publishes complete instructions entitled "Testing, Care and Use of Linemen's Rubber Protective Equipment", Industrial Safety Series No. P. U. 3.

In a paper of this kind I think it well to remark briefly on the effect of electrical shock and on first aid. Did you ever sit down to read by the light of a 25 W lamp and, finding that it did not give light enough, you took it out and put in a 100 W? When you did that did you realize that, although it did not give light enough to read by, there was enough current flowing in it to kill a man.

Authorities differ widely about the effect of electrical shock and there is little doubt that different voltages and frequencies have different effects. One thing that seems to be generally agreed upon, however, is that either the respiratory center is paralyzed or the heart vibrated and stopped. In the first case, "the respiratory center, located under the base of the skull at the back of the head, becomes paralyzed stopping the respiratory organs and, if the victim is not given first aid to restore breathing at once, death will take place by suffocation." Artificial respiration by the prone pressure method is the best.

(To be continued)

IT CAN BE DONE!

SAFETY RECORD

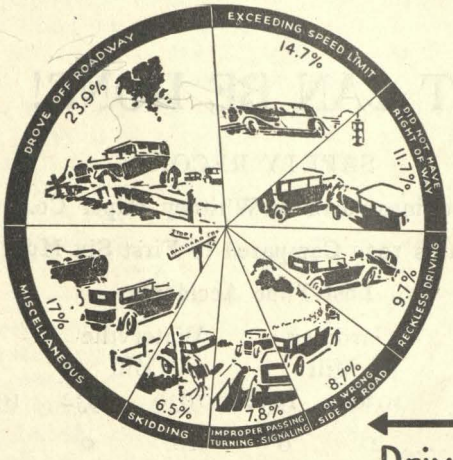
Hollingsworth & Whitney Paper Co.

First 6 Months 1930 Compared to First Six Months 1932

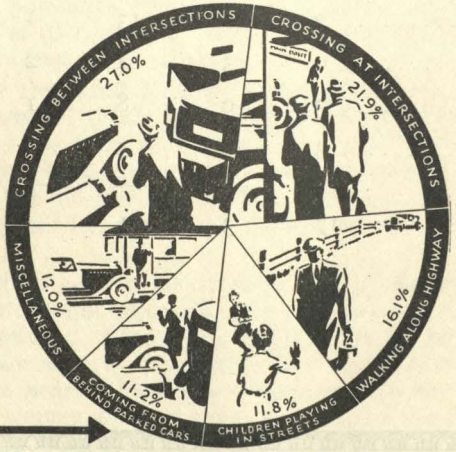
Lost-Time Accidents

	Gardiner Mill		Waterville Mill		Madison Mill	
	1930	1932	1930	1932	1930	1932
Jan.	2	0	10	0	1	0
Feb.	6	0	12	0	1	0
March	2	0	13	1	2	0
April	0	3	4	2	0	0
May	3	0	8	1	0	0
June	4	0	4	0	0	0
	17	3	51	4	4	0

Human Actions Producing Deaths—



Drivers



Pedestrians